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MAJOR CROP PROGRESS AND WEATHER REPORTING

UKRAINIAN SUGAR BEET HARVEST OPERATIONS DESCRIBED

Kiev PRAVDA UKRAINY in Russian 31 Aug 82 p 1

/Article by L. Rozhinskiy, chief of the Main Administration for the Production of Technical Crops of the UkSSR Ministry of Agriculture: "Beet Fields"/

/Excerpts/ The beet fields of our republic are tremendous in size -- 1.75 million hectares. And the yield to be obtained from them this year is good and in a number of areas even outstanding. Hence there is every reason to expect that the Ukrainian beet growers, in responding to the decisions handed down during the May Plenum of the CPSU Central Committee, will fulfill their socialist obligations and dig up and ship their crops in keeping with the established schedules.

The development of high yields has been promoted by the extensive use of new and progressive methods for cultivating this crop. On almost one half of the growing area, the sowing was carried out using a reduced norm for the sowing of highly productive varieties of seed. And the introduction of new varieties made it possible to employ an industrial cultivation technology on 527,000 hectares and this is sharply reducing labor expenditures for the production of one quintal of beets and sugar.

The harvesting of the crop is commencing at the present time. It should be borne in mind that owing to different sowing schedules and other factors the beets are ripening in an irregular manner. Hence the task consists first of all, during September and the early part of October, of properly combining the timely digging up of the beets with supplying the sugar plants with raw materials on a continuous basis. Secondly, those beet fields should be tended which are scheduled for harvesting at a later date. On fields where the haulm has been cut down, shallow loosening of the inter-row spacings should be carried out, weed control work completed and the beets protected against diseases.

At the present time, with the all-union campaign underway to protect all crops grown, special importance is being attached to the campaign to guard against losses throughout the entire chain -- from the field to the sugar plant. It should be remembered that large crop losses usually occur in those areas where the agrotechnical requirements are violated; the haulm harvesting machines cut down a large amount of the sugar-containing bulk and the root harvesting machines fail to dig up all of the roots and many of them become broken. This leads to a shortfall

of 20-24 quintals of beets per hectare. Considerable crop losses occur as a result of drying out of the roots: during the course of a hot day, harvested and uncovered beets lost from 8 to 10 percent of their weight. Moreover, the beets lose their resistance against microorganisms and rapidly decompose and a reduction takes place in their sugar content. Thus the work must be organized in a manner such that on the same day that they are dug up the beets are shipped off to the receiving points. And those which for one reason or another are left out on the fields should be carefully covered over with dirt.

Equal importance is attached to ensuring that the crop is stored in a reliable manner in clamps, lime should be applied to the beets laid away, the clamps should be covered with mats and if a cold snap occurs in October -- with dirt.

There can be no doubt but that the republic's beet growers will devote a maximum amount of effort towards ensuring observance of the schedules established by the government for digging up and shipping the beets and that they will make a worthy contribution towards carrying out the food program.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

UKRAINIAN SUGAR BEET HARVEST OPERATIONS

Moscow SEL'SKAYA ZHIZN' in Russian 23 Sep 82 p 1

/Article by S. Luzgan, Ukrainian SSR/

/Excerpts/ The beet plantations have come to life and smoke has begun pouring from the smokestacks of the sugar plants. The busy harvest period has commenced. However, the start of the beet harvest has had its problems. In a number of rayons in Vinnitsa, Cherkassy, Sumy and Ternopol' Oblasts, piles of harvested beets have lying out on the field for some time now. Some of the republic's sugar plants have not attained their planned capability for the daily processing of the raw materials. Despite the fact that the mass digging up of the roots has commenced, the enterprises of Minavtotrans and Goskomsel'khoztekhnika for the UkSSR have fallen short in their deliveries of vehicles for transporting the beets by tens of thousands of motor vehicles.

The beets are ripening in an irregular manner. The different sowing periods, the resowings and other factors are all playing a role. Thus the republic's harvesting schedules were developed in a manner such that in September and early October the digging up of the beets (in order to provide a continuous supply of raw materials for the sugar plants) could be combined with tending those plantations requiring later harvesting work. Loosening of the inter-row spacings in advance has become a mandatory agricultural measure. Under present conditions, with the soil packed as it is, this operation serves to improve the water and air regime, it promotes the accumulation of weight and sugar in the roots and it also facilitates the operation of the equipment.

The Ukrainian machine operators are attaching great importance to adjusting the haulm harvesting machines for the correct cutting of the haulm and the root harvesting machines -- for digging under all of the roots and without breaking them. A combine operator moves out onto a plot only after he is certain that all units of the root and haulm harvesting machines have been properly adjusted. The adjustments are carried out by engineers and experienced machine operators. They control the quality of the harvest work. Correct adjustments make it possible to raise the root yield by 20-25 quintals per hectare

The tempo of the new sugar season in the Ukraine is increasing with each passing day. It is quite properly referred to as the second harvest. And this is by no means an accident. This year the republic's beet growers and sugar industry workers must supply the country with 5.7 million tons of sugar, the production of which will require the processing of 51.5 million tons of high quality raw materials.

MAJOR CROP PROGRESS AND WEATHER REPORTING

MORE EFFICIENT SUGAR BEET TRANSPORT OPERATIONS REQUIRED

Kiev PRAVDA UKRAINY in Russian 5 Oct 82 p 1

/Excerpts/ As called for in the republic's scientific-technical program "Sakhar," the beet growers and sugar industry workers in the Ukraine must, during the next decade, increase their production of sugar by a factor of 1.7, raising the yield in final product from each hectare to 38 quintals. And a considerable step must be taken towards the goal during this current and second year of the five-year plan: to harvest and deliver to the beet receiving points 51.5 million tons of beets and to obtain 5.7 million tons of sugar from them -- 32.1 quintals per hectare.

Hence, one of the most important tasks of the party organs, local soviets and all activists in the rural areas at the present time is that of achieving maximum efficiency and harmony in the interacting of all elements in the beet and sugar production line "field - route - plant."

The advantages offered by the progressive method for carrying out beet shipments are once again being proven and confirmed by transport workers in the leading beet growing rayons -- Zhashkovskiy in Cherkassy Oblast, Yampol'skiy in Vinnitsa Oblast and Kobelyakskiy in Poltava Oblast.

At the same time, it is not being valued at its true worth in all areas or by everyone. Everyone in the republic is familiar with the experience of the Nikolayev oblsel'khoztekhnika, where the brigade contract method is being persistently introduced for drivers, with payments based upon the final results, including for beet shipments. In Domanevskiy, Vradiyevskiy and Pervomayskiy Rayons, such brigades transported 9,600 tons of roots during the first decade in September alone. Unfortunately however, in this same Nikolayev Oblast, this experience is not being disseminated among enterprises of the Minavtotrans System. As a result, the vehicles are not being utilized to their maximum capability. In Domanevskiy Rayon, for example, the farm vehicles transport the beets two times more productively than do the motor vehicles of enterprises of the ministry.

And indeed the organization of the transport operations is unsatisfactory -- this is one of the reasons why last year, in a number of oblasts -- including Nikolayev, Khmel'nitskiy and Kirovograd Oblasts -- large quantities of roots remained out on the fields for long periods of time. The oblast and rayon harvesting staffs must devote fixed attention to proper observance of the hourly schedules on the beet routes, to achieving double-shift utilization for each motor vehicle and to

ensuring that the motor transport vehicles are loaded and unloaded in a timely manner on the farms and at the plants.

In the republic's "Sakhar" program, specific reserves are pointed out for increasing the yield of final products, reserves which the processing enterprises must place in operation during the next few years. One of the most important reserves is that of improved organization for the acceptance and storage of raw materials at the plants.

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UZBEK SSR COTTON HARVEST STATUS REPORT

Moscow SEL'SKAYA ZHIZN' in Russian 19 Oct 82 p 1

/Article by A. Uzilevskiy, Uzbek SSR: "In Defiance of Inclement Weather"

/Text The fourth million tons of cotton did not come easy for the farms of Uzbekistan. It required 13 more days, or twice as many as were required for procuring the third million. Since the beginning of October, only rarely did a day pass without rainfall. The average norm for precipitation established over a period of many years turned out to be greater by a factor of 2-3.

But the cotton is progressing. There will be cotton! And there will be enough for fulfilling the obligations undertaken. Two thirds of the volume of the second harvest still remain to be gathered in. A strong requirement exists for more work to be carried out.

Many examples could be cited showing how the selfless work performed by farmers in Tashkent and Khorezm Oblasts and in the Kara-Kalpak ASSR was of great assistance in countering the inclement weather conditions and producing gratifying results. In all, 18 working days were required in Bukinskiy Rayon for carrying out the plan for selling cotton to the state. The entire planned yield was harvested by machines and accepted by the procurement specialists as being of high quality. The rayon's cotton growers resolved to raise the volume of raw cotton sales to 85,000 tons, that is, to supply the country with 18,000 additional tons. One half of this amount has already been shipped to the receiving points.

The farms in Akkurganskiy, Galabinskiy and Pskentskiy Rayons coped with the plan in just 20-21 working days. Here 90-95 tons of every 100 tons were harvested by machine operators. The principal bulk of the raw cotton was evaluated as being of 1st grade quality. On the whole, Tashkent Oblast was the first in Uzbekistan to complete its cotton sales. As of today, more than 435,000 tons have been procured. More than 80 percent of the crop was obtained with the aid of machines and the quality of the cotton procured was considerably higher than that obtained earlier.

Analysis indicates the following: today the cotton growers in the Kara-Kalpak ASSR and in Khorezm Oblast are skilfully taking advantage of the experience accumulated by the Tashkent farmers. Having overcome the low-water conditions, which affected in particular the fields along the lower reaches of the Amu-Darya River, they condensed their field work cycles, created an early crop and employed

the technology of large-group utilization of the harvesting-transport pool. By the first days of October, that is, prior to the onset of the period of extended rainfall, they had already harvested two thirds of the cotton crop here. In Beruniyskiy Rayon in the Kara-Kalpak ASSR, Gurlenskiy and Khankinskiy Rayons in Khorezm Oblast and in Leninyul'skiy Rayon in Surkhan-Darya Oblast, where the plan for procurements either has been completed or is in the process of being completed during this period, 70-80 percent of the crop was obtained by machines prior to the rainy season.

More attention has been given to the quality of the raw cotton being obtained, as borne out by the results of those farms engaged in producing fine-fibred varieties. According to data for the middle of October, the republic had sold 300,000 tons of fine-fibred raw cotton to the state. This is almost 100,000 tons more than by this same date last year. For the very first time, one half of the cotton harvest of fine-fibred varieties was obtained using machines.

Tense work is being performed by those thousands and thousands of rural workers and city-dwellers who are engaged in the manual harvesting and selection of cotton. In those areas where fine conditions have been created for the work and relaxation of the pickers, the daily output remains high. Many such examples are to be found in Tashkent, Samarkand, Dzhizak, Syr-Darya and Navoi Oblasts.

The appeal addressed to the republic's workers by the Central Committee of the Communist Party of Uzbekistan, the Presidium of the Supreme Soviet and the Council of Ministers for the Uzbek SSR has filled the hearts of the people with new energy. Everything is being done to harvest the crop more rapidly and without losses and to supply the country with no less than 6 million tons of cotton. On Saturdays and Sundays there is a mass exodus of city-dwellers to the cotton fields. Student detachments and groups of manual and office workers sent out from the cities to lend support to the farms participate actively with the kolkhoz members and sovkhoz workers in harvesting the cotton. Recently the harvest work has increased in tempo. By the morning of 18 October, 4,32 million tons of raw cotton had been delivered to the state's storehouses, or 140,000 more tons than were delivered by this same time last year.

An average of 70,000-72,000 tons of cotton having a raised moisture content is being delivered each day to the cotton plants of Uzbekistan and to their procurement points. The raw cotton must be dried and cleaned without delay. The processing workers must not fail the farmers; they are obligated to ensure a high quality for the cotton.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

COMBINED MACHINE-MANUAL HARVESTING OF COTTON IN UZBEK SSR

Moscow SEL'SKAYA ZHIZN' in Russian 18 Sep 82 p 1

/Article by A. Uzilevskiy, Uzbek SSR/

/Excerpts/ At the present time, millions of workers in Uzbekistan are beginning and ending the day with the harvesting of cotton. Thus the farms in Bukhara Oblast have already harvested and delivered to the procurement points more than 160,000 tons of raw cotton. In the process, only 3,000 tons were harvested by machines. As a result of the work of pickers, high positions in the republic's summary are also occupied by Khorezm, Navoi and Surkhan-Darya Oblasts.

By the middle of September, the kolkhozes and sovkhoses of Uzbekistan had supplied the state with 1.15 million tons of cotton, including approximately 200,000 tons which had been harvested by machines. Such a ratio is still justified, since the defoliation of the plants is still taking place. When the bushes are bare and no green bulk remains for the spindles to grasp, the blue machines will move through the rows. Yes and the plan calls for almost 2 million tons of raw cotton to be obtained manually.

Nevertheless, great importance is being attached to properly combining both harvesting methods and to ensuring unconditional fulfillment of the obligations for mechanizing the picking of cotton. Unfortunately, this rule is already being violated in some areas. By 17 September, the farms in Gizhduvanskiy Rayon in Bukhara Oblast had fulfilled their procurement plan for cotton by almost one half and yet as of today 70 percent of the machines had still not made an appearance out on the check plots. At the same time, in Leninyul'skiy Rayon in Surkhan-Darya Oblast, where one fifth of the planned amount of raw cotton has been delivered to the state storehouses, every eight out of ten tons are unloaded from the hoppers of cotton harvesting machines. This example is worthy of imitation and particularly in view of the fact that at each kolkhoz and sovkhos in the republic there are fields which have been prepared for machine harvesting.

At the present time, more than 114,000 tons of raw cotton are being delivered each day to the procurement points of Uzbekistan. All of it is being accepted as being of superior grade. The farms are commencing their mass harvesting of the crop.

The country expects to receive 6 million tons of cotton from the republic's workers.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

COTTON PRODUCTION PROBLEMS IN TURKMEN SSR DISCUSSED

Moscow IZVESTIYA in Russian 24 Sep 82 p 1

[Article by V. Gavrichkin, Turkmen SSR]

[Excerpts] The work tempo achieved for the republic on the whole exceeds by almost threefold that for last year and the weather conditions are considerably more favorable than those experienced during 1980. The initial 100,000 tons of raw cotton were delivered to the procurement bases by 11 September, just 6 days later the second 100,000 ton level was passed and the count now has reached 300,000 tons. Nevertheless, even these figures provide no basis for complacency.

A distinctive feature of this present autumn period is the early ripening of the crop. Although everyone is aware of this fact, nevertheless complete preparations have not been made in all areas. Although on the leading farms the harvest work was started at the very first opportunity; two weeks earlier than last year the machines were moved out onto the fields, nevertheless the preparations for work were dragged out on many farms. Thus the cotton growers in Mary Oblast are under an obligation to supply 413,000 tons of raw cotton this year -- more than all of the other oblasts in the republic. However, by the middle of September only slightly more than 43,000 tons had been delivered to its procurement points. The equipment is being employed in an unproductive manner on fields in Maryyskiy, Iolotanskiy, Murgabskiy, Turkmen-Kalinskiy and Sakar-Chaginskiy Rayons and it can be stated that the harvesting machines have not as yet truly been included in the work. Nor is the situation any better in Ashkhabad Oblast with regard to equipment usage: 700 tons of hopper raw cotton are being received daily here from the farms, despite the fact that the summary indicates that 450 machines are in operation on the plantations. Less than 1 ton of raw cotton is being harvested daily per combine in Bakhhardenskiy and Takhta-Bazarskiy Rayons.

What is the problem? It is not enough merely to refer to poor equipment operation. Most likely, the fear of suffering a loss in quality also plays a role. This year, as is well known, the procurement prices for raw cotton were raised and at the same time new standards were introduced. Whereas earlier the raw cotton harvested by machines was classified as being of 1st, 2d or 3d grade quality, with the payment for all three types being made at the rate for 1st grade quality, today different prices have been established for the different grades. This can be quite costly for a negligent manager.

However the experience of right flank workers has already shown that on those farms where concern was displayed throughout the summer for maintaining the fields in a

clean state, where fine preparations were made for harvesting the fields, where the leaves were removed in a skilful manner, where the machines were properly adjusted, where concern was displayed for asphaltting the sites and where the raw cotton being received from the plantations was passed through thrashed heap cleaners, machine harvesting of the crop provided advantages both in terms of the work rates and in the payments for high quality products. Unfortunately, the raised requirements with regard to the quality of hopper raw cotton caught many economic executives by surprise.

The procurement specialists, whose participation is badly needed, are still not providing the cotton growers with adequate assistance. At the procurement bases of the Kaakhka Cotton Ginning Plant, for example, an instrument method for achieving input control over the raw material has been mastered. Using laboratory equipment, a check is carried out here on the raw cotton of each batch received and in terms of all parameters. In the process, the laboratory workers, once they have discovered deviations from the norm, immediately inform the cotton growers regarding the causes of the deviations. But only a few examples of such coordinated action can be cited.

Despite this year's difficult and dry summer period, the cotton growers of Turkmenistan have cultivated an outstanding crop. They are presently striving to supply the homeland with 1.22 million tons of raw cotton, including no less than 300,000 tons of the more valuable fine-fibred varieties. In order to accomplish this, importance is being attached to taking full advantage of each hour of each day devoted to harvesting the crop. Autumn is hurrying by. In some areas the September rainfall for the plantations has already ended.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

TURKMEN SSR COTTON PRODUCTION PLAN

Moscow SEL'SKAYA ZHIZN' in Russian 2 Oct 82 p 1

/Article by S. Kim, Turkmen SSR/

/Excerpts/ There is a Turkmen proverb: "Spread out your carpet and I will read your heart." For cotton growers, a ripe field serves as just such a carpet, one which impassively and accurately reflects the final result of one's labors. Here there is but one criterion for conducting an appraisal -- the worth of the crop cultivated.

It is not easy to cultivate such cotton. And it is equally difficult to harvest it without losses and to avoid lowering its high technological qualities.

The acceptance of machine harvested cotton according to grades produces high economic results. But only in those instances where a strong barrier against waste has been erected in connection with the work being performed by driver-machine operators and all those participating in the harvest.

Special attention is being given to ensuring that all units are in proper working order and also to the additional cleaning of hopper raw cotton, since this serves to ensure high quality cotton.

Certainly, not all of the reserves have been placed in operation. The procurement points are still receiving considerably less hopper raw cotton on a daily basis than expected. One of the chief reasons -- the sluggish manner in which the leaders and specialists of individual farms are introducing the mechanized harvesting of the crop into operations. An especially alarming situation has developed at a number of kolkhozes in Turkmen-Kalinskiy, Kirovskiy and Karabekaul'skiy Rayons. Here more than one half of the harvesting machines are laid up.

The Turkmen cotton growers have outlined high goals for themselves: to sell more than 1.22 million tons of raw cotton to the state this year, including 270,000 tons of fine-fibred cotton. A chief concern at the present time is that of ensuring that each farm carries out its tense work plans.

The efficient organization of labor and effective use of the equipment are making it possible to harvest the crop successfully and to supply the homeland with a greater quantity of high quality raw cotton.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

TAJIK CONFERENCE ON DEFOLIATION OF COTTON PLANTS

Dushanbe KOMMUNIST TADZHIKISTANA in Russian 25 Aug 82 p 1

/Article: "To Ensure a High Level of Readiness for the Machine Harvesting of Cotton"/

/Text/ In just a matter of several days the busy harvest campaign will commence on the republic's cotton fields. The efficient utilization of the cotton harvesting machines will aid the farmers in harvesting the crop rapidly and without losses and honorably carrying out their high socialist obligations. If a broad front of work is to be ensured for the combines, defoliation must be carried out in a timely and high quality manner.

The question regarding the readiness of all services for carrying out this important agrotechnical operation was examined during a conference which convened on 24 August in the Central Committee of the Communist Party of Tajikistan. The participants at this conference included leaders and specialists of the Ministry of Agriculture, the Tajik Civil Aviation Administration, Goskomsel'khokhtekhnika, Tadzhiksel'khokhtimiya, the ministries of the cotton ginning industry, public health, Tadzhikpotrebsoyuz and workers attached to party, soviet and agricultural organs of oblasts and rayons.

The chief of TUGA /Tadzhikskoye upravleniye grazhdanskoy aviatsii; Tajik Civil Aviation Administration/ V.V. Ryazanov and the chairman of Tadzhiksel'khokhtimiya S.D. Dzhurayev provided information on the course of preparations for defoliation. It was noted that the aviators, agrochemical service workers and kolkhoz and sovkhoz workers are carrying out intensive work in connection with preparing the aircraft of agricultural aviation, the ground equipment of airfields and temporary runways and they are supplying defoliants. Cotton defoliation work must be carried out this year on 380,000 hectares and dessication on 120,000 hectares. Towards this end, 133 aircraft of agricultural aviation and 1,500 OVKh-14 and OVKh-28 units for ground treatment work were made available. In addition to the republic's aviators, pilots from western Siberia and Kirghizia are participating in this important operation.

At the same time, it was emphasized during the conference that in some oblasts and rayons the preparations being made for the defoliation work are not in keeping with the requirements of the times. Many aircraft runways have still not been prepared and the conditions required for efficient work by the aircraft and their crews have not been created. The repair of storehouse facilities is being dragged

out. The problems concerned with deliveries of defoliants and fuel and lubricating materials have not been resolved in all areas. The priority order for the defoliation of fields has not been established. The training level for signal personnel, upon whom the quality of the defoliation work is heavily dependent, must be raised.

The Central Committee of the Communist Party of Tajikistan has obligated the leaders of ministries and departments, oblast and rayon agricultural administrations and Tadzhiksel'khozkhimiya to undertake urgent measures aimed at eliminating all shortcomings so as to ensure that the defoliation work is carried out during the best periods and on a high level.

During the conference, a speech was delivered by secretary to the Central Committee of the Communist Party of Tajikistan M.B. Babayev. Secretary to the Central Committee of the Communist Party of Tajikistan A.D. Dadabayev participated in the work of the conference.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

COTTON HARVESTING CONCERNS IN TAJIK SSR REVIEWED

Dushanbe KOMMUNIST TADZHIKISTANA in Russian 15 Aug 82 p 1

[Excerpts] In the decree adopted by the Central Committee of the Communist Party of Tajikistan and the Tajik SSR Council of Ministers it is noted that the party, soviet, agricultural and procurement organs and all agricultural workers throughout the republic, having actively joined in the socialist competition to celebrate properly the 60th anniversary of the USSR and while implementing the decisions handed down during the 26th CPSU Congress, the 19th Congress of the Communist Party of Tajikistan, the May (1982) Plenum of the CPSU Central Committee and the conditions and conclusions set forth in the report delivered before the Plenum by the general secretary of the CPSU Central Committee and chairman of the Presidium of the USSR Supreme Soviet Comrade L.I. Brezhnev, are waging a tense campaign aimed at increasing the production and improving the quality of raw cotton and achieving unconditional fulfillment of the socialist obligations undertaken.

At the same time, an inspection has revealed that many kolkhozes and sovkhoses throughout the republic have made only weak preparations for harvesting their raw cotton. At a number of farms, the complex of operations associated with tending the cotton plantings and preparing the fields for machine harvesting is being carried out with considerable violations of the agricultural practices and the work of removing weeds from the fields has still not been completed.

A most important task is that of ensuring the machine harvesting of no less than 450,000 tons of raw cotton, including 155,500 tons on farms in Leninabad Oblast, 146,000 tons in Kurgan-Tyube Oblast, 89,000 tons in Kulyab Oblast and 59,500 tons in rayons of republic subordination. The fulfillment of tasks for the machine harvesting of raw cotton will be considered as the principal indicator when summarizing the annual results. The machine harvesting of fine-fibred cotton must be introduced into operations on an extensive scale; differentiated tending of the plantings must be organized on fields where the machine harvesting of raw cotton is to be carried out and every attempt must be made to eliminate excessive watering, bolting and lodging of the cotton and also the presence of weeds.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

RECORD COTTON SALES--Ashkhabad Oblast--We are presently troubled by one concern -- to harvest the cotton more rapidly and without losses and to place it under a reliable roof. The republic's workers, in acting upon the decisions handed down during the May (1982) Plenum of the CPSU Central Committee, intend to sell a record amount of cotton this year -- more than 1.22 million tons, including no less than 270,000 tons of varieties having high quality fibre. We must fulfill these obligations prior to the Great October holiday. /by B. Shikhiyeva, driver-mechanic of a cotton harvesting machine at the Ashkhabad Kolkhoz in Serakhskiy Rayon, Ashkhabad Oblast/ /Excerpt/ /Moscow SEL'SKAYA ZHIZN' in Russian 9 Oct 82 p 1/ 7026

COTTON PLANTATIONS EXPANDED--The farmers in Gyaurskiy Rayon have commenced selling fine-fibred cotton to the state over and above the obligations already undertaken. Utilizing their cotton harvesting combines in a highly productive manner, they gathered in their entire crop of high quality "white gold" in just 2 weeks time. Turkmenistan is the country's largest supplier of raw cotton of 1st grade fibre, a cotton that is in high demand by textile workers. Once the water of the Kara-Kum Canal began arriving, the cotton plantations were expanded considerably. /Text/ /Moscow TRUD in Russian 13 Oct 82 p 1/

COTTON SALES TO STATE--Columns of motor vehicles carrying cotton are advancing along the roads in Tajikistan. Each day the republic's farms are selling up to 20,000 tons of raw cotton to the state. The work tempo is twice as high as that for last year: the weather is good and all elements of the production line "field-to-plant" are operating in an efficient manner. On the farms the work plans and schedules have been reexamined in the interest of ensuring that the valuable raw material is fully harvested, shipped and stored in a reliable manner prior to the onset of inclement weather. In honor of the 60th anniversary of the USSR, the field workers have resolved to sell 915,000 tons of raw cotton, including 310,000 tons of fine-fibred cotton. The farmers of Tajikistan have already sold approximately 600,000 tons of raw cotton to the state. Their efforts are directed towards harvesting the republic's chief crop rapidly and without losses and honorably fulfilling their raised socialist obligations. /by N. Ruzanov/ /Excerpts/ /Dushanbe KOMMUNIST TADZHIKISTANA in Russian 25 Aug 82 p 1/ 7026

COMPETITION FOR QUALITY--Dushanbe, 13 Oct--The farmers of Tajikistan have sold 600,000 tons of "white gold" to the state. This is more than 100 tons greater than the figure for this same time last year. The cotton growers in Kulyab Oblast are leading the socialist competition. Here the machine harvesting of the

raw cotton is being carried out at a high tempo and a "competition for quality" has been organized in which the farms, procurement and processing enterprises are participating. Cleaning and drying units are being operated in all areas and this is making it possible to raise the cotton to a high quality condition. /Text/
/Moscow SEL'SKAYA ZHIZN' in Russian 14 Oct 82 p 1/ 7026

EARLY RIPENING OF COTTON--The early ripening of the crop has made it possible for the republic's cotton growers to commence their cotton defoliation work 1 week earlier than last year. This season, on farms throughout the republic, defoliation work will be carried out on 198,000 hectares and from this area the machine operators must harvest 450,000 tons of cotton. Before long the cotton harvesting machines will be moving out onto the fields. They will set the tempo for the busy harvest season and decide the fate of the crop. /by A. Stepanov/ /Excerpts/
/Dushanbe KOMMUNIST TADZHIKISTANA in Russian 7 Sep 82 p 1/ 7026

COTTON DEFOLIATION COMMENCES--For the jubilee year, the republic's machine operators have vowed to harvest 800,000 tons of raw cotton. The necessary conditions are available for obtaining such a quantity of cotton. On an overwhelming portion of the plantings, the cotton plants have ripened 6-10 days earlier than last year. A real opportunity exists for completing the harvest work rapidly, for fulfilling the socialist obligation and for selling 1.22 million tons of cotton to the state. The majority of the republic's farms have commenced their defoliation work and yet, commencing with the very first days, this work has not been carried out in conformity with the schedules. Very poor use is being made of ground equipment for defoliation purposes, despite the fact that the effectiveness of this equipment is known to all. Approximately 415,000 hectares of cotton plants are to be harvested by machines. Taking into account repeated defoliation, 635,000 hectares must be worked. The plans call for the use of 176 aircraft and 1,840 tractor sprayers for carrying out the defoliation work. All of this powerful equipment will make it possible to complete the defoliation work by 20 September. The completion of this important work in keeping with the established schedules will create real prerequisites for fulfilling the socialist obligation for the jubilee year. /by A. Arzyamov, deputy minister of agriculture for the TuSSR and A. Abdurakhmanov, deputy chairman and chief of the Plant Protection Administration of the Turkmensel'khozkhimiya Association/ /Text/ /Ashkhabad TURKMENSKAYA ISKRA in Russian 8 Sep 82 p 1/

INCREASED COTTON PRODUCTION--This present harvest season is taking place in an atmosphere of high political and labor enthusiasm, aroused by the preparations for the 60th anniversary of the USSR and the decisions handed down during the May (1982) Plenum of the CPSU Central Committee. This is attaching a high degree of interest to the competition and it is instilling in the agricultural workers a desire to present the homeland with new achievements in improving livestock production and to make a worthy contribution towards carrying out the food program. An analysis of the work of the cotton growers during the first 10 days in September underscores the fact that the work is being carried out at a high tempo on a majority of the farms. For the republic as a whole, this work tempo is considerably higher than that of last year and the weather conditions more favorable than those of 1980. By 11 September, more than 100,000 tons of raw cotton had been delivered to the republic's procurement points -- twice as much as was delivered by this same date last year. The high increases achieved in cotton deliveries by workers in many rayons throughout the republic are very gratifying. At the present time, the

daily indicator for leading workers is 1.30-1.50 percent. To honorably fulfill their socialist obligations and to supply the homeland with 1.22 million tons of "white gold" -- such is the patriotic and international obligation of the workers of Turkmenistan, a matter of honor for them and labor valor. /Excerpts/ /Ashkhabad TURKMENSKAYA ISKRA in Russian 8 Sep 82 p 1/ 7026

COTTON HARVEST STATUS REPORT--Chimkent Oblast--The chief of the agricultural administration A.S. Sasbukayev comments upon the course of the harvesting work being carried out on the cotton plantations in Chimkent Oblast: "At the present time, it is pleasant to view the cotton fields. It is as though they are dressed out in a snow white costume. And this is a true sign that a fine crop is at hand this year. The principal task of the cotton growers is to harvest it completely and avoid losses. The busy harvest period began somewhat earlier than usual this year. But it did not catch the cotton growers unawares. They were waiting for it and thus they moved all of their equipment and transport vehicles up to the readiness line in advance and all of the procurement points and field camps were placed in the proper working order. True, abundant rainfall occurred unexpectedly in all of the cotton growing regions at the beginning of the harvest work and this delayed the work somewhat. But the cotton growers succeeded in making up for the time lost. The harvest work is increasing in tempo both on the farms and in the various regions. More than 100,000 tons of raw cotton have already been delivered to the procurement points, or almost 2.5 times more than was delivered to the state by this same date last year. Reports are being received from the cotton growing farms on the fulfillment by brigade and detachment collectives of their planned tasks. The high yields and high harvest tempo are inspiring the confidence that the obligations undertaken by the oblast's cotton growers in honor of the 60th anniversary of the USSR will not only be fulfilled but even over-fulfilled to a considerable degree." /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 5 Oct 82 p 1/ 7026

RICH COTTON CROP--The mass harvesting of raw cotton commenced yesterday in Azerbaijan. A rich crop has developed notwithstanding the unfavorable weather conditions. The cotton growers must harvest it from an area that has been increased by 30,000 hectares. The "3038" cotton variety, developed by Azerbaijan plant breeders, has been cultivated for the most part on these tracts. This variety is resistant against diseases, it ripens 7-10 days earlier than its predecessors, it has a high cropping power and it increases the yield of fibre. Five hundred harvesting-transport teams have been created throughout the republic. Two thirds of the planned yield will be harvested using the mechanized method. Over the past 10 years, five strain changings have been carried out for cotton in Azerbaijan and measures have been implemented aimed at achieving specialization and concentration in the branch. This has increased by twofold the production of raw cotton and it has improved its quality. The republic's farmers plan to procure more than 1 million tons of raw cotton in honor of the 60th anniversary of the USSR. /Text/ /Moscow TRUD in Russian 7 Sep 82 p 1/ 7026

SUCCESSFUL SUGAR BEET WORK--Kiev, 6 Oct--As of today and since the beginning of the season, 20 million tons of sugar beets have been delivered to processing enterprises in the Ukraine. The schedules agreed upon between the beet growers and the sugar refiners call for a high tempo of transport operations. Loading-transport detachments are in operation on many farms and the brigade contract method is being

employed extensively by the transport workers. This has enabled many collectives to raise their average daily output per motor vehicle to 30 tons. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 7 Oct 82 p 1/ 7026

COTTON PRODUCTION INCREASE REQUIRED--Azerbaijan SSR--During recent zonal conferences of the party-economic aktiv of cotton growing rayons throughout the republic, the following was noted: more concern must be displayed for increasing the production volumes for raw cotton and realizing a maximum increase in the finished products. Strong criticism was addressed to those who last year tolerated a drop in the quality of the cotton being procured. The task has been assigned of raising the percentage of fibre yield in all areas, organizing the acceptance and processing of raw cotton from each farm and each brigade separately and raising the responsibility and interest of the cotton growers and processing personnel in improving the quality of the products. The cotton clumps at the procurement points appear as white mounds. The republic's farmers, inspired by the speech delivered by Comrade L.I. Brezhnev during celebrations in Baku, are fully resolved to commemorate the year of the May Plenum of the CPSU Central Committee and the 60th anniversary of the USSR with shock labor and to carry out their harvest work in a timely manner and without losses. More than 550,000 tons of raw cotton have already been harvested. The farmers in Imishlinskiy, Saatlinskiy, Zardobskiy and Bardinskiy Rayons are leading the competition. /by L. Tairov/ /Excerpts/ /Moscow PRAVDA in Russian 8 Oct 82 p 1/ 7026

COTTON SEED PRODUCTION--The harvesting of raw cotton seed requires special attention. The leaders of processing enterprises are obligated to create fine conditions for storing the seed and for procuring such seed in the established volumes. Indeed, many farms are still being forced to sow low quality seed. In Chimkent Oblast, for example, such seed is annually sown on more than 60,000 hectares. This is the result of poor work by the seed farms, the procurement points and the cotton plants. Thus the technology for cleaning and drying the seed is not always observed at the Chimkent plant and at times the seed is subjected to crushing and over-heating. Last year the plant's collective procured 2,000 tons of seed and only 700 tons were shipped to the farms. The remaining amount spoiled. Seed spoilage is also being tolerated at a number of cleaning enterprises in other republics. Importance is being attached to avoiding the mistakes of past years. The processing of the raw cotton seed must commence the very first day it is obtained and it must be borne in mind that the fate of the future harvest is dependent upon the quality of the seed. /Excerpt/ /Moscow PRAVDA in Russian 24 Sept 82 p 1/ 7026

UZBEKISTAN COTTON HARVEST--Tashkent, 1 Oct--The harvesting of the fourth million ton of cotton has commenced on the fields of Uzbekistan. Six out of every ten tons are being unloaded from the hoppers of cotton harvesting machines. The cotton growers in Tashkent Oblast are obtaining a high level of productivity from their equipment. Over the past 6 days, they delivered 130,000 tons of raw cotton to the procurement points, of which amount 100,000 tons were obtained by the machine operators. The leading farms are already carrying out above-plan procurements of the crop. The farmers in the Karakalpak ASSR, Syr-Darya, Dzhizak and Khorezm Oblasts are carrying out their harvest work in an organized manner. At the same time, the harvesting tempo is decreasing on farms in Fergana, Andizhan, Bukhara and Kashka-Darya Oblasts. The chief reason for this -- unsatisfactory utilization of the harvesting equipment. The plan for the mechanized harvesting of the crop has been fulfilled in these areas by only 13-22 percent while at leading farms this indicator is 50-70 percent. /by A. Uzilevskiy/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 2 Oct 82 p 1/ 7026

EARLY COTTON HARVEST--The cotton fields appear to be dressed out in a snow white costume. The initial convoys of tractors towing wagons have appeared out on the country roads in the republics of Central Asia, Azerbaijan and southern Kazakhstan. The production line has commenced operations -- from the fields to the procurement points. This year the cotton harvesting work commenced 10-12 days earlier than last year. By overcoming the low-water conditions and other caprices of nature, the farmers succeeded in obtaining a fine crop and one which is making it possible to fulfill the socialist obligations undertaken in the competition to celebrate in a worthy manner the 60th anniversary of the USSR. All of the cotton growers are aware however that the cultivation of a rich crop represents only one half of the task. The chief concern at the present time is that of harvesting it rapidly and without losses and to supply the procurement points with high quality materials. The "white harvest" is increasing in tempo. The shock labor being performed by the cotton growers and their competition to achieve high final results are inspiring the confidence that this year the country will be supplied with a large quantity of valuable products. This review was prepared by specialists of the USSR Ministry of Agriculture. /Excerpts/ /Moscow PRAVDA in Russian 2 Sep 82 p 1/ 7026

CONCERN FOR QUALITY--Over the past two decades the production of cotton in Uzbekistan has doubled. This increase has been achieved mainly as a result of the cropping power being raised considerably. Last year, an average of 32 quintals of cotton per hectare was obtained throughout the republic and the gross yield exceeded 6 million tons. The farmers in Surkhan-Darya Oblast have set a fine example of genuine concern for raising the quality of the product. This year they are striving to obtain 600,000 tons of cotton, with 300,000 tons of this amount being fine-fibred cotton. Last season the oblast's farms sold 234,000 tons of such raw cotton. This level must be exceeded by 66,000 tons. This will represent a considerable step taken. It will be achieved by means of further specialization in the production of especially valuable fibre in the rayons and on the farms. In past years the farms were unwilling to expand their sowings of fine-fibred varieties, since their growing and harvesting periods are longer and the harvesting of the crop is carried out using mainly the manual method. It was for these reasons that the collectives which worked on such fields fell behind in the competition. This year a special coefficient has been developed and is being introduced in all areas which makes it possible to level off the conditions for all of the farms. The initial 80,000 tons of manually harvested cotton have already been delivered to the procurement points. /by A. Urkinbayev, Minister of Agriculture for the Uzbek SSR/ /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 4 Sep 82 p 1/ 7026

UZBEKISTAN COTTON PLAN--Tashkent, 24 Sep--Two million tons of cotton have been delivered to the procurement points of Uzbekistan. This is twice as much as was delivered by this same time last year. Approximately 600,000 tons have been harvested by machines. The daily cotton procurements exceeded 165,000 tons. Using their machines, the machine operators are harvesting almost 100,000 tons daily. For a period of 5 days now the competition among the cotton growers of Uzbekistan has been headed by the agricultural workers in Tashkent Oblast. Yesterday they delivered 23,000 tons of cotton to the procurement receiving points. Approximately 18,500 tons were unloaded from the hoppers of vehicles. The average daily output for one cotton harvesting unit in the oblast is 6 tons and on some farms -- 7.5-8 tons. Mass machine harvesting operations have commenced in Dzhizak and Syr-Darya Oblasts. Here 85-90 percent of the crop is being harvested by machine operators.

All of the work being performed by the field workers of Uzbekistan is being directed towards ensuring that the country is supplied with no less than 6 million tons of cotton /by A. Uzilevskiy/ /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 25 Sep 82 p 1/ 7026

FINE COTTON, RICE CROPS--Nukus, 12 Jul--The traditional mutual inspections on the fulfillment of socialist obligations have been carried out in the Kara-Kalpak ASSR. During the course of these inspections, it was established that notwithstanding the dry and windy weather the cotton sowings nevertheless are surpassing in terms of their development the level achieved during favorable years. In continuing their campaign to obtain a high yield, the farmers commenced foliar waterings. The moisture, which is in short supply, is expended in an economic manner and so as to produce the greatest results for the plants. Work is proceeding well for the rice growers. The plants are growing in size and give every promise of providing a fine yield. Weed control work has been completed out on the plantings. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 13 Jul 82 p 1/ 7026

PROGRESSIVE COTTON TECHNOLOGY--Tashkent, 16 Jul--The initial bolls have appeared on the cotton fields in Tashkent Oblast. They are opening earlier than usual. The introduction of a progressive technology for the cultivation of cotton is having an effect. It consists of the efficient use of the equipment -- the use of manual labor has been eliminated entirely here and a reduction has taken place in the pauses between operations. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 17 Jul 82 p 1/ 7026

COMBINE HARVESTING OF COTTON--Karshi, 9 Sep--The cotton growers in the Karshi Steppe region have commenced their machine harvesting of the crop. The combine harvesting of cotton is commencing on the fields of other farms in the Karshi Steppe region. /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 10 Sep 82 p 1/ 7026

A CONFIDENT START--The drivers of the UkSSR Minavtotrans have delivered the first million tons of sugar beets of the new harvest to the processing enterprises. A confident start has been made by the workers attached to the Vinnitsa, Kiev, Khmel'nitskiy and Cherkassy Oblast administrations. The deputy minister for motor vehicle transport for the UkSSR, A.N. Artemenko, informed a correspondent of RATAU /Ukrainian News Agency/ that since the very first days of work out on the beet routes the collectives of the branch's motor vehicle enterprises have been striving to make a worthy contribution towards carrying out the country's food program. This autumn they must deliver 21 million tons of raw materials to the processing enterprises -- considerably more than last season. In all, 29,000 motor vehicles (in a 3-ton computation) will take part in the busy beet harvesting season. Their operation while attached to 1,640 large mechanized harvesting-transport detachments, the majority of which work on the basis of the brigade contract method, has promoted efficient interaction between the motor vehicle operators on the one hand and the kolkhozes, sovkhoses and beet receiving points on the other. /Excerpts/ /Kiev PRAVDA UKRAINY in Russian 15 Sep 82 p 1/ 7026

CONCERNS OF BEET GROWERS--Kiev, 20 Sep--The trucks and motor vehicle trains loaded down with raw materials from the new harvest are proceeding in a continuous flow towards the sugar plants of the Ukraine. The mass harvesting of this leading technical crop is now taking place in all of the republic's beet growing oblasts. This season a reduced sowing norm has been employed on almost one half of all of the plantings and the industrial cultivation technology has been introduced into operations on one half million hectares. The machine operators have placed in operation their entire technical beet harvesting arsenal, including approximately 24,000 combines and 19,000 loaders. Special attention is being given in all areas to the proper adjustment of the units. Selective harvesting carried out in Vinnitsa, Cherkassy and Khar'kov Oblasts has shown that this precludes the need for manual cleaning of the roots. Based upon the example set by workers in Yampol'skiy Rayon, the collectives of almost 5,000 farms, motor transport enterprises and sugar plants concluded agreements for labor collaboration. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 21 Sep 82 p 1/ 7026

CSO: 1824/52

PROBLEM OF UNIFICATION, COORDINATION WITHIN STRUCTURE OF APK

Moscow KHOZYAYSTVO I PRAVO in Russian No 9, Sep 82 pp 21-26

/Article by G. Rudenko, chief of the Summary Department of the APK for USSR Gosplan: "Planning and Administration in the APK"/

/Text/ Over the past three five-year plans the volume of capital investments in the branches of the agroindustrial complex exceeded 400 billion rubles, of which amount 347 billion rubles were employed directly in agriculture. As a result, the agricultural productive fixed capital reached 227 billion rubles, thus exceeding the level for 1965 by a factor of 3.4.

The growth in gross agricultural output made it possible to raise substantially the level of food consumption by the population, to achieve qualitative improvements in the assortment of products and to raise the welfare of the Soviet people. Over a period of 15 years, per capita meat consumption increased from 41 to 58 kilograms, milk from 251 to 314 kilograms, eggs from 124 to 239 units and vegetables from 72 to 97 kilograms.

During the years which have elapsed since the March (1965) Plenum of the CPSU Central Committee, 500 million square meters of apartment living space have been built in the rural areas. Improvements have been realized in cultural and domestic services for the population and increases have taken place in the number of pre-school children's institutes, dining halls, hospitals and schools. The wages of kolkhoz members and sovkhos workers have been raised. Payments from the public consumption funds have been increased.

At the same time, negative trends have appeared in agriculture during the past few years. The rates of growth for production and labor productivity have declined, profits and profitability have decreased and the financial status of kolkhozes and sovkhos has deteriorated noticeably.

Moreover, whereas the caloric value of the food ration for the population of our country long ago reached the physiological norm, the food structure nevertheless requires substantial improvement. Difficulties are still being encountered in connection with the supply of meat and other livestock production products, vegetables and fruit.

Definite disproportions are being observed in the development of the APK /agroindustrial complex/ branches and shortcomings have been noted in the procurement, storage, transporting and processing of agricultural products.

To a considerable degree, these shortcomings are explained by the fact that in recent years the forms and methods for planning and administration have fallen behind the rapidly developing productive forces. The new production formations have been forced into adapting to obsolete methods for planning, stimulation and administration.

Under socialism, as is well known, the chief function of administrative activity is planning. The state plan is the most important instrument for implementing the economic policies of our party. With the aid of this plan, diverse production resources and factors are integrated into a single system for ensuring effective means for achieving high final results.

Constant improvements must be carried out in the planning methods and principles if full use is to be made of the advantages offered by a planned socialist system. The potential of a socialist society in this regard is tremendous. However, this potential is not always being utilized either correctly or completely. Moreover, in some instances a deviation took place from statutes adopted following the March (1965) Plenum of the CPSU Central Committee. The local organs of administration have begun employing on an extensive scale methods for providing the farms with growing areas by crops and livestock according to types. They are imposing recommendations which do not take local conditions into account and they are expanding the number of indicators and tasks being imposed upon the farms. The extreme regulation of the actions of farm leaders and specialists is restraining their initiative and weakening their responsibility and interest in the work.

One substantial shortcoming in planning practice was the fact that the approach employed for establishing the planned tasks based upon the "achieved level" was divorced from the specific conditions and this led to a continuation of the obsolete proportions in the development of agriculture and its related branches.

Departmental dissociation in administration has produced serious shortcomings in planning, logistical supply, specialization and in the rational distribution of production, it has complicated the solving of tasks associated with the all-round development of the rural areas and it has encouraged parallelism and duplication. Each department attempted to develop its own services in the various areas in the absence of coordination with the other branches. As a result, the capabilities for storing and processing the products fell behind and an increase took place in product losses along the entire route leading from the fields to the dining tables.

Notwithstanding the obvious disproportions between the production of agricultural raw materials and the capabilities for processing them, the situation was corrected only slowly. For example, whereas the rates of growth for capital investments during the 10th Five-Year Plan and compared to the 9th, on the average for the principal branches and participants in the APK, amounted to 30.2 and in agriculture (for the entire complex of operations) -- 32 percent, in the food industry -- only 2 percent, meat and dairy -- 9.6, milling-groats and mixed feed industry -- 13.6 percent. The falling behind of the logistical base for the processing branches of industry led to tremendous losses in the crops grown and to a reduction in the quality of the products.

On 14 November 1980, the CPSU Central Committee and the USSR Council of Ministers adopted the decree entitled "On Improving the Planning and Economic Stimulation of

Production and the Procurements of Agricultural Products"^{*}. This decree contained an efficient system of carefully thought out organizational measures aimed at improving the planning and economic stimulation of production and the procurements of agricultural products. The decree raised the task of ensuring a balance in the five-year and annual plans for agricultural development between the production volumes and state procurements of products on the one hand and the available and allocated logistical and financial resources, fixed productive capital and capital investment volumes on the other.

The system of measures called for in the decree orients the planning and economic organs towards achieving high final results and satisfying more completely the increasing public and also private requirements.

The imperative need for improving planning under modern conditions derives from the considerable expansion and complications that have taken place in inter-branch relationships, the conversion over to intensive methods for carrying out production operations, the appearance of new branches and the extensive development of the processes of inter-farm cooperation and agroindustrial integration. All of this requires thorough analysis and disclosure of the bottlenecks and disparities in branch and territorial planning and in the methods for coordinating agricultural production with allied branches and services.

In order to achieve scientifically sound planning, a combination of branch and territorial principles is required. An exaggeration of the value of just one of them leads to adverse consequences, since each of these principles has its own advantages and shortcomings. Thus the branch principle promotes an acceleration in the rates for technical progress. At the same time, it leads to the manifestation and development of departmental interests, it slows down the development of inter-branch relationships and it hinders inter-branch division of labor. The territorial principle serves to ensure the complete development of regions and the conformity of the infrastructure to the production requirements. But it slows down the development of inter-regional relationships.

When composing both the branch and territorial plans, one observes a tendency to inflate the requirements for resources supplied by other branches and to lower the indicators for deliveries of one's own products beyond the limits of the branch (region).

Since the territorial principle for planning has not been observed in a number of instances, the solving of particular branch tasks has been pushed into the foreground. Quite often these tasks are not coordinated with the final goals of the complex and proper interrelationships are lacking among the branches included in its structure. Difficulties are encountered in connection with the redistribution of capital investments and logistical resources among the branches of the complex.

When converting over to all-round planning, it should be borne in mind that the plan for developing the APK is not just the result of summarizing the branch plans. During its development, consideration is given to the requirements and possible scales for the production of the final products of the complex. The development of

* SEL'SKAYA ZHIZN', 1980, 17 December

all branches of the APK is subordinated to this task. Thus importance is attached to determining the requirements for intermediate products of the respective branches and this must be reflected in the common and branch plans for development of the APK.

The use of such an approach makes it possible to find an objective basis for planning the rates and proportions and the capital investment amounts for each branch of the APK, such that minimal social expenditures will be required for the intermediate and final national economic results.

The program-special purpose method for planning, which makes extensive use of mathematics and computer equipment, must promote the overcoming of departmental barriers and the system of seniority and the subordination of all elements of the APK to achieving maximum final results. It promotes a concentration of forces and resources for achieving this goal and it makes it possible to utilize more effectively the tremendous economic potential that is available and to achieve steady growth and increased economic efficiency for public production.

Recently, a greater amount of attention has been attached throughout the country to developing complex all-state programs for the more important scientific-technical, economic and social problems.

Complex programs are making it possible, within the framework of a single national economic plan, to concentrate resources for the solving of key problems and to solve inter-branch problems successfully.

One of the more important and complicated special purpose complex programs is the country's food program for the period up to 1990. Developed in conformity with the decisions handed down during the 26th CPSU Congress and approved by the May (1982) Plenum of the CPSU Central Committee, the food program is a document of tremendous state importance. Its value lies not only in the scale of the measures which it calls for but also in the basically new special purpose program method for planning the production of the final products.

"The preparations for and the implementation of such a program" emphasized L.I. Brezhnev during the May Plenum of the CPSU Central Committee, "represent a basically new step being taken within our system for planning and administering the socialist economy. The program embodies a special purpose and all-round approach for solving the food problem."

"The most important feature of such an approach lies in the need for coordinating and combining the work of both agriculture itself and its service branches of industry, transport and trade and subordinating all of their activities to the overall final goal -- the production of high quality food products and delivering them to the consumer."

The development of the program has made it possible to uncover the larger causes of losses and to outline specific measures for eliminating them (the construction of new and the modernization of existing capabilities for the storage and processing of products, the development of specialized transport and a logistical base for the trade organizations and so forth). The program contains solutions for intensifying the processing of agricultural raw materials and achieving more

complete utilization of secondary resources (skim milk, buttermilk, whey, molasses and so forth) for the production of high quality food products.

All-round planning for the production of food goods calls for achieving the final goals not only through the increased production of agricultural products and raw materials, but also by reducing product losses, intensifying the processing of raw materials, improving the utilization of secondary resources and decreasing the consumption of food products for technical purposes by using products of artificial synthesis in their stead.

It is considered advisable to include in the future and annual plans for the economic and social development of the country a section entitled "Development of the Agroindustrial Complex." It must include a mutually coordinated and balanced system of indicators, which describes the program for developing the national economic APK. Similar sections should be developed for the union and autonomous republics, krays and oblasts. It is obvious that the system of planning indicators for these sections will differ for the various levels. Thus the system of plan indicators for the country's APK must, to the degree that it is possible, encompass completely the development of the branches in all three spheres of the complex, including the first sphere, which produces the means of production for agriculture and other branches of the APK, the second sphere -- the branches of agriculture and the third sphere -- those branches engaged in processing the agricultural products and also the development of the production and social infrastructure.

The system of plan indicators for the APK's of union and autonomous republics, krays and oblasts, in complete conformity with production specialization, will encompass the development only of the agricultural branches and the corresponding branches of the processing industry and also the development of the production and social infrastructure. With regard to the branches in the first sphere, their planning as a rule is a prerogative of the organs of administration at the union level. However, all levels are characterized by such indicators as the sales volumes for final output by the APK on the whole and the final products of individual types; the capital investment limits, the limits for logistical resources and labor resources; indicators for the effectiveness of the APK and social development. In other words, the system of planning indicators is aimed at increasing the production and sale of the final output.

The distribution of capital investments and financial, labor and logistical resources among the branches of the APK and the types of economic activity is subordinated to the interests of optimizing the proportions for all of the mutually associated elements of agroindustrial production, strengthening the backward sectors and eliminating existing disproportions.

In conformity with the decrees approved during the May Plenum of the CPSU Central Committee, USSR Gosplan, jointly with the ministries and departments, is developing recommendations for a system of planning and logistical supply within the agroindustrial complex, based upon the following:

...the activity of the APK is planned as a single whole, with a breakdown by branches belonging to this complex;

...consideration is given only to those indicators which were established by party or governmental decrees (for agriculture -- the 14 November 1980 decree of the CPSU Central Committee and the USSR Council of Ministers);

...availability of the material and other resources required for the planned tasks;

...the production volumes for agricultural output are formed by rayons, oblasts and republics based upon the kolkhoz and sovkhoz plans and also upon the need for ensuring unconditional fulfillment of the established plans for state procurements of this output;

...the plans for logistical supply are developed based upon kolkhoz and sovkhoz requisitions.

The standard statutes and other normative documents concerning the functioning of agroindustrial associations call for solutions for such problems as improving the branch and territorial structure of the APK, developing production specialization and concentration, correctly utilizing all capital investments and logistical, labor, financial and other resources allocated, based upon the need for concentrating them at decisive locations and overcoming bottlenecks and disproportions.

With the consent of the appropriate ministries and departments, the associations are authorized to redistribute the limits for capital investments and logistical and other resources among the enterprises and organizations included in their structure. They prepare long-range plans for agricultural production specialization and distribution and also for the enterprises which process the products.

The measures outlined are making it possible to solve the social problems of the rural areas in a more complete and more effective manner. The material and financial resources for these purposes are centralized and the priorities for constructing the installations will be determined based upon the requirements of the population and the economics of a specific territory and not from the standpoint of the interests of individual enterprises and organizations. Thus a search must be undertaken for the best parameters for the system of planning indicators and for evaluating the activities of ministries, departments, associations and enterprises and the efficiency and quality of their work.

This system must ensure a unity of interests for the workers of an enterprise, association, agroindustrial complex or state, by motivating them to accept and fulfill tense plans on the whole and contractual obligations by types of economic activity and to lower all expenditures and to achieve the proper quality and assortment for the products of a complex. Exactingness is being raised in the interest of ensuring that the resources allocated by the state are utilized on the farms with a maximum degree of effectiveness and produce a maximum return. The conditions for planning and stimulation must be such that the farm leaders are not interested in obtaining more resources at any price. But here a great amount of responsibility is imposed upon the leaders of planning and agricultural organs for the correctness and soundness of the capital investment indicators assigned to the farms, for the placing in operation of irrigated lands and so forth. The new system of planning requires more accurate coordination of all factors associated with leveling off the economic conditions of management for the various rayons, enterprises and organizations.

When solving the problem of improving administration within the APK system, we are of the opinion that maximum use should be made of the administrative experience

accumulated at the rayon level in the Russian Federation, the Ukraine, Georgia, Latvia and Estonia.

In 1975, in Vil'yandiskiy Rayon (Estonian SSR), they began combining agricultural and service enterprises of the state and kolkhoz-cooperative sector, with the independence and economic initiative of these elements being retained. The resources of the farms and organizations belonging to the association were centralized, opportunities were created for their economic maneuvering to the exclusion of departmental and seniority barriers and a complete and balanced program was developed for food and the social development of the rayon, for intensifying inter-farm specialization and cooperation and for strengthening the economies of backward farms. All of this made it possible to utilize the monetary and logistical resources more efficiently and to achieve noticeable improvements in agriculture. During the 10th Five-Year Plan and compared to the average annual levels for the 9th Five-Year Plan, the Vil'yandiskiy RAPO /rayon agroindustrial association/ increased its production of grain by 39 percent, milk -- by 21 and meat -- by 38 percent.

Deserving of attention are those proposals for converting over to providing the territorial organs with procurement plans for agricultural products, but only for those volumes which are to be shipped beyond the confines of a given territory. This would intensify the role and responsibility of the local organs with regard to the formation of an all-union fund, it would make it possible to facilitate the planning process and it would ensure efficiency and flexibility in the decision-making process. The local organs, when such a system of planning is employed, will display greater responsibility in the preparation of their plans and in supplying their populations with food products. The distribution of capital investments and logistical resources for the development of regional agroindustrial complexes could be based upon the volumes of products supplied by them to the union fund.

When distributing resources for the deliveries of products to the all-union fund, the territorial organs should be authorized to select those types which furnish the highest return under specific conditions. Limitations placed upon the total amount of capital investments and logistical resources would force the economic executives to adopt a more thrifty attitude towards them and to make better use of the achievements of scientific-technical progress.

In carrying out the food program, a maximum contribution must be made by each union republic. This can be accomplished by making maximum use of the available opportunities and reserves for raising the efficiency of production for all APK branches. In raising the return from the production-technical potential, the union republics must ensure the fulfillment of the food production volumes included in the program and organize a reliable supply of food products for the population, mainly by intensifying the production of such products in the various areas. Based upon control figures provided by USSR Gosplan for the 12th Five-Year Plan, each union republic and also the autonomous republics, krais, oblasts and rayons must complete their food programs and at the kolkhozes and sovkhoses -- all-round plans must be composed for development of the farm and for increasing the production of agricultural products. These programs and plans must define the role and place of each farm, rayon, oblast, kray and republic in solving the food program.

An important source for augmenting the country's food resources is that of further increasing the production of goods at the subsidiary farms of industrial enterprises and organizations and on the private plots of the population.

Thus more attention must be given to improving the work of existing subsidiary farms of enterprises and organizations, to the creation of new ones and also to eliminating the unjustified and economically unsound limitations that have been placed upon the development of the private plots of kolkhoz members, manual and office workers and all citizens.

Within the program, specific tasks have been established for USSR Gosplan, the ministries and departments of the agroindustrial complex in connection with the development of a number of methodological and legal documents, upon which all work aimed at the efficient carrying out of the program will be greatly dependent.

In the near future, work will commence with regard to preparing recommendations for the basic directions for the economic and social development of the country during the 12th Five-Year Plan. During their preparation, it should be borne in mind that the tasks for producing certain types of food goods, as noted during the Plenum, are minimal in nature. It would appear that reserves must be found for ensuring further growth in production, both through the use of additional capital investments and material resources and by improving the structure of the APK, such that the structure will ensure improved quality and a reduction in product losses during all stages in the production, storage and transporting of goods.

The councils of the agroindustrial associations will become the chief administrative elements for implementation of the food program. Taking advantage of the rights extended to them, they will be able to direct and control the work of all of the enterprises and organizations of the APK, skilfully coordinate and unite the efforts of all subunits participating in the implementation of the food program and raise their interest in achieving the highest final results.

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FACTORS INFLUENCING STABILITY OF AGRICULTURAL PRODUCTION

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/Article by I. Zagaytov, doctor of economic sciences and P. Polovinkin, doctor of economic sciences, Voronezh: "Raising the Stability of Agricultural Production"/

/Text/ In promulgating the all-round food program, the party assigned the following task during the May (1982) Plenum of the CPSU Central Committee: "to ensure a stable supply of all types of food products for the population, to raise noticeably the consumption of high quality products and to carry out substantial improvements in the nutritional structure"* . One of the chief directions to be pursued in implementing the food program of the USSR is that of proportional and balanced development of the APK /agroindustrial complex/. A most important element of this trend -- raising the stability of agricultural production.

Based upon practical experience, many technological and economic methods have been developed for countering the adverse consequences of unstable economic activities, caused by unfavorable external factors: protection against hail, irrigation, the use of glass-covered ground, the drying economy, work aimed at combating pests and diseases, the development of grass cultivation and cattle husbandry in regions where the grain crops suffer periodically from a surplus of moisture, regulating the system of inter-regional and inter-branch relationships, the development of a system of reserve funds and so forth. Thus on the whole it can be stated that there is an overall trend towards raising the stability of agriculture, despite the fact that in various regions and branches and during particular periods it is manifested in a contradictory manner. This can intensify the lack of balance at the level of the agroindustrial complex and, it follows, require greater attention with regard to selecting the preferred trends for the concentration of efforts, in the interest of reducing the fluctuations in the production of particular crops. In some instances this calls for priority investments in land reclamation and in others -- for the all-round mechanization of production processes, either for developing the highway and storehouse economy, for the use of chemical processes or for increasing the capabilities of the processing industry and so forth.

Special importance is attached to the organization of logistical supply, which is dependent upon the volume and structure for the production of the means of

* "Prodoval'stvennaya programma SSSR na period do 1990 goda i mery po yey realizatsii" /USSR Food Program for the Period Up To 1990 and Measures for Implementing It/, Moscow, Politizdat, 1982, p 10.

production for agriculture. In the final analysis, it is precisely in this sector of economic construction that the material prerequisites are formed for achieving further progress in farming and livestock production. But it is also here that the factors which can restrain agricultural development, including raising its stability, are founded.

Shortages in harvesting equipment, loading-unloading and transport equipment, equipment for the all-round mechanization of operations on the farms and also shortages in the facilities employed for storing products and for the specialized maintenance of animals and young stock -- all of these factors affect substantially the schedules for and quality of fulfillment of agricultural operations and they cause losses in products grown and in young stock even during years considered to be average in terms of meteorological conditions. The strengthening of the logistical base of agriculture and branches of the agroindustrial complex and achieving not only complete support in terms of the means of production but also the creation of reserves -- constitute a primary prerequisite for raising the stability of production. Moreover, here we have in mind not only intensifying the volume indicators for capital availability but also leading improvements in the structure of the production resources of the APK.

However, an increase and change in the structure of productive capital can produce considerable results only if improvements are realized simultaneously in the utilization of such capital. The experience of many farms and rayons underscores the possibility of changing the unfavorable trend being observed at the present time towards lowering the daily volume of work being carried out by tractors, motor vehicles and so forth. This can be accomplished through a concentration and centralization of technical resources (Ipatovo harvesting method, Verkhne-Khavskiy method for providing technical services for kolkhozes and sovkhozes, the creation of various types of associations -- branch and territorial, which operate on the basis of linear and functional relationships) and also inter-regional maneuvering in the use of equipment on a large scale. This requires improvements in the work of the economic service.

Existing practice does not always correctly take into account the expedient differentiation of norms for the deliveries and replacement of technical resources by regions of the country. Thus the periods for harvesting grain crops in Estonia and the weather conditions here are somewhat worse than those experienced in Latvia. However, the availability of combines per 100 hectares of harvesting area is 15 percent lower in the former republic. Overall, under favorable weather conditions (1977, 1979) the harvesting of grain crops per hectare in Estonia surpassed the indicators for Lithuania by an average of 8 percent and when there was a substantial deterioration in the harvesting conditions (1978), the indicators were lower by 6 percent. In Tsentral'nyy and Volgo-Vyatskiy Rayons, considerable shortages are being observed in harvesting equipment, transport equipment and in the drying economy; in the arid rayons of the Volga and Urals regions -- soil cultivation equipment; a disruption in proportionality in the distribution of equipment among farms is even being observed within the limits of individual oblasts. We are of the opinion that the time is at hand for regulating the system of differentiated distribution of logistical resources and converting it over to a scientific basis, while ensuring the availability of a sufficiently reliable normative base which takes into account, in particular, such an important factor as fluctuations in the conditions of reproduction in agriculture.

Many years of experience have shown that a decisive factor for obtaining high grain crop yields is that of adequate moisture for the latter during the growing season. The data furnished in the following table on grain production stability at kolkhozes, sovkhozes and at state strain testing stations located in various economic regions of the RSFSR confirms the fact that fewer fluctuations are observed in the yields in those areas where adequate moisture is available.

Rayon	Proportion of Grain Crops in Overall Area Under Crops, in %	Coefficient of Grain Crop Stability	
		For Kolkhozes and Sovkhozes in 1948-1980	For State Strain Testing Stations in 1968-1979
Severo-Zapadnyy	1.3	0.884	0.895
Tsentrall'nyy	9.1	0.838	0.886
Volgo-Vyatskiy	5.2	0.782	0.854
Tsentrall'no-Chernozemnyy	7.8	0.799	0.803
Povolzhskiy	24.8	0.652	0.630
Severo-Kavkazskiy	11.5	0.767	0.782
Ural'skiy	15.1	0.660	0.762
Zapadno-Sibirskiy	17.4	0.666	0.850
Vostochno-Sibirskiy	6.5	0.846	0.823
RSFSR as a whole	10.0	0.825	0.877

Thus a great amount of attention is being given at the present time to the development of land reclamation operations. All conditions being equal -- labor availability, proper nutrients in the soil and others -- the expenditures for land reclamation work are repaid more rapidly in regions characterized by long and dry summers, where the factor of a shortage or surplus of moisture affects to a greater degree the economic results.

The economic effectiveness of land reclamation is raised if crops which are valuable from a national economic standpoint (cotton, rice, soybeans, vegetables and others) are grown on the improved lands. A great deal depends upon the forms of the reclamation work and upon the proportion of cheap operations involved, for example, the irrigation of flood-plain lands using natural sources of water.

However, a certain reduction has recently been noted in the rates of growth in the fund of reclaimed lands. Thus the May (1982) Plenum of the CPSU Central Committee has called for the area of irrigated land to be raised to 20.8 million hectares by 1985 and to 23-25 million hectares by 1990.

In this regard, the use of treated waste waters of industrial enterprises and the services of a municipal economy for the irrigation of land is deserving of attention.

Ideally the organizations responsible for all-round planning for the municipal and rural economies should take into account the interests of agriculture when making plans for water discharges. In many instances this requires a reevaluation not only of the many plans for purification installations but also of the prevailing viewpoint concerning the feasibility of a reverse water supply for industrial enterprises.

The increasing importance of land reclamation for raising the stability of agricultural production tends to place greater emphasis on the need for thrift and effective utilization of the reclaimed lands and this is greatly dependent upon the quality of construction and the culture of operations for the reclaimed systems. In addition to improvements in the logistical base for land reclamation, this also requires regulation of the system of relationships between the builders and the operating personnel, regulation of the technology for using the reclaimed lands and the placing in operation of material stimuli aimed at raising the return from resources expended for land reclamation. Ideally, a study should be undertaken of the experience accumulated in the Lithuanian SSR, where the transfer of a newly reclaimed tract over to a farm is carried out "following the harvest," that is, following the completion not only of an entire complex of reclamation work but also an evaluation of the tract based upon the final results of the first year of operation. Deserving of attention also is the creation on an inter-farm basis of a specialized service for the operation of reclaimed lands.

In addition to land reclamation, a great role is played at the kolkhozes and sovkhozes by the utilization of technological factors for raising the stability of production operations -- improving the methods for tilling the soil and tending the crops, the use of fertilizers, the various snow retention methods and so forth. Here great importance is attached to a flexible system of farming and livestock production, one which takes into account not only the natural conditions of each region but also the annual weather. A mobile system of farming and the technology for cultivating the crops must call for appropriate changes: in the ratio of winter and spring, early and late crops and their varieties; in the fertilizer structure for occupied and clean fallow; the norms and periods for sowing the seed and the effects of fertilizers; the means and methods for tilling and harvesting the crops.

One of the principal conditions for raising the stability of production operations -- the rational organization of a territory, the expedient conversion of land and the selection of crop rotation plans that are preferred for the various tracts of land. Depending upon the physical-chemical structure of the soils and the microrelief of the terrain, individual tracts respond differently to fluctuations in the weather conditions. Drought conditions cause greater harm to light-grey forest soils than they do to podzolic chernozem soils; such conditions affect to a lesser degree the crop yields obtained from sod-alluvial lands and from the land of a grainy flood-plain. Conversely, during an excessively damp year a sharp reduction takes place in the productivity of tracts located in low areas of relief. Thus, on leading farms more attention is given to the utilization of land for various crops. Hence, in the interest of ensuring its income and fulfilling its procurement plan the Put' k rassvetu Kolkhoz in Kromskiy Rayon in Orel Oblast regularly grows one portion of its hemp crop on flood-plains and the other portion -- on improved lands. A similar situation prevails at the Vlast' truda Kolkhoz in connection with the growing of sugar beets and at the Kolkhoz imeni K. Marks -- with the growing of vegetables. Taking into account the quality of the land, specialized crop rotation plans (technical, grain-cultivation, forage and soil-protective) are being introduced here, which call for the usual requirements to be met and also for increased production stability, through a concentration of the more valuable crops on the best tracts and the transporting of marketable products -- closer to hard surface roads, the cultivation of crops having long growing seasons on lands characterized by greater moisture.

During the past few years, the productivity of the country's arable land has increased many times over, a fact which does not hold true for meadow lands; their average productivity at kolkhozes throughout the country in 1978 and 1979 was roughly twice as low as that for areas having sown grasses. However, those farms which are employing measures for the intensive utilization of these potentially highly valuable lands are obtaining record high yields for their grasses and other forage crops. The food program for the country for the period up to 1990 calls for the following: "the implementation of the measures required for the further intensification of field and meadow-pasture feed production...".^{*} Rather interesting in this regard is the example of the Put' k kommunizmu Kolkhoz in Ramonskiy Rayon in Voronezh Oblast; one third of the farm's land is located on the fertile floodplain of the Don River and two thirds consist of sandy loam soils. From the floodplain lands the farm annually obtains up to 70 quintals of hay, 500 quintals of root crops and more than 300 quintals of corn silage. This makes it possible to have 43 cows per 100 hectares of agricultural land, to produce more than 1,300 quintals of milk and, through the use of large dosages of organic fertilizers, to obtain stable yields of 28-30 quintals of grain, 180 quintals of potatoes and so forth from its fields.

A most important factor for raising the stability of functioning of the entire agroindustrial complex is the accelerated development of branches of the chemical industry which are oriented towards meeting the requirements of the rural areas for diverse types of mineral fertilizers, plant protective agents and feed additives. A need presently exists for increasing considerably those resources required for improving the storage and utilization of these products.

The scientific-technical potential of modern chemistry is making it possible to organize the mass production of effective substitutes for agricultural raw materials for the textile, leather goods, alcohol, paint and varnish and mixed feed industries. However the capabilities of its respective branches are still inadequate. Thus the task has been assigned of achieving optimum proportions in the distribution of capital investments among agriculture and the chemical industry, such that it will be possible, at the earliest possible date, to substitute cheap raw materials to be used for technical purposes in place of vegetable oils (40 percent of the production volume) and starch (55 percent), reduce substantially the expenditures of plant fibre and high quality sugar containing raw materials and subsequently to create a reserve of capabilities in the event of fluctuations in the production volumes for agriculture.

An increasingly important factor with regard to raising the stability of agricultural production is that of utilization of the achievements of the biological science: the introduction of methods for the biological protection of crops and animals, development of the microbiological synthesis industry, plant breeding improvements aimed at developing more productive varieties for individual crops and strains of livestock, the rational organization of seed production work and reproduction of the herd. Permit us to discuss the latter two aspects in somewhat greater detail.

During the 1930's, Academician N.I. Vavilov pointed out that in the campaign against drought conditions, especially dry and hot winds which usually occur during mid-summer, in July, great importance is attached to the selection of early ripening

^{*} Food Program of the USSR for the Period Up To 1990 and Measures for Impelementing It. p 37.

varieties of agricultural crops. Assuming that in the majority of instances they are less productive, he assigned the task of breeding varieties suitable for average conditions. Academician N.P. Dubinin later formulated the problem somewhat differently, stating that a highly productive variety was required for both dry and normal years*. But what about those unusually damp years which occur from time to time? For which varieties should a preference be shown: those which over a period of many years of testing reflect a higher average annual productivity or those which display their advantages on a selective basis only under experimental conditions?

At first glance it would seem that a preference should be shown for those varieties which are more indifferent to fluctuations in the meteorological conditions. However, we are of the opinion that this is justified only in those instances where the level of the productive forces for farming is relatively low. If agriculture has a rather strong logistical base at its disposal; if the possibility exists of creating strong reserves for food goods, feed and industrial raw materials and if science, with the passage of time, makes it possible to have timely and reliable forecasts of meteorological irregularities, then the sowing of seed for drought resistant varieties becomes economically justified during a year in which drought conditions are expected and in the case of a year in which damp conditions are expected -- seed for varieties deemed more suitable for a rainy summer. But the selection in this manner is feasible in keeping with the modern level of forecasting potential -- taking into account the sowing of variety mixtures. According to data supplied by the VIR /All-Union Scientific Research Institute of Plant Growing/ imeni N.I. Vavilov/, if the variety-components differ in terms of their reaction to weather conditions, then they take more full advantage of the environmental factors. Owing to the possibility of mutual transpollination of plants having different heredities, their vitality is raised -- as a result, their survival rate is higher than that for pure sowings: more plants remain for harvesting and the cropping power is increased.

Similarly, the insuring of a crop against possible fluctuations in the weather conditions can be achieved through the extensive use of mixed sowings of several crops having harvesting periods which coincide. A great amount of experience has been accumulated in kolkhoz and sovkhos production operations in the cultivation of various grain crop mixtures for feed purposes (winter wheat and rye, vetch with oats, barley with peas and others), grass mixtures (winter vetch with winter rye, oats with peas and others) and other combinations (sunflowers with Sudan grass for silage, corn with sunflowers for silage and others). This experience should be summarized for the purpose of introducing it into production operations on an extensive scale as one element in a system of measures for raising the stability of farming.

It is obvious that the use of mixed sowings and specially selected mixtures of various required crops assumes a high level of organization for seed production work, preferably on an industrial basis. But this requires that a high coefficient for seed propagation be ensured in advance. Considering the seed consumption norms prevailing at the kolkhozes and sovkhoses for a large portion of the grain, pulse and potato crops, the conversion of seed production over to a

* See: "Problemy bor'by s zasukhoi i rost proizvodstva sel'skokhozyaystvennykh produktov" /Problems in Combating Drought Conditions and Growth in the Production of Agricultural Products/. Moscow, "Kolos," 1974, p 103.

marketable basis would be extremely difficult. Only by achieving a substantial reduction in the proportion of seed in the gross yield will it be possible to achieve stable development for seed production and this requires new production technologies, an improvement in sowing equipment and in the overall culture of farming and the concentration of seed production operations on farms capable of obtaining high yields under various weather conditions. This is very important, since the country's food program calls for grain crop seed production to be converted over to an industrial basis during the 11th Five-Year Plan.

Stability in the development of the agroindustrial complex is determined by the planned introduction of scientific and engineering achievements into operations and by the level achieved in the solving of purely economic problems (improving the structure and distribution of production, the effectiveness of the mechanism for regulating economic activity and so forth).

Let us return once again to the Table. Based upon the information contained in it, the grain crop yields for kolkhozes and sovkhoses in the RSFSR fluctuate most in the Volga and Urals regions. According to data supplied by strain testing stations, obtained over the past 20-25 years, these regions will continue to remain a zone of unstable grain production in the future. Thus, in the opinion of many economists, new irrigation systems in the Volga region should be used primarily for increasing the production of grain. In the western and nonchernozem regions of intensive cattle husbandry development, where at the present time the proportion of grain crops in the sowings is not very great, the area of forage crops is being expanded, including for the purpose of obtaining grass meal. And since the production of grass meal is energy-intensive, a question arises concerning increased expenditures for accelerating the gasification of farms in the western regions. But is this economically justified? If we take into account the fact that 1 hectare of irrigated land in the lower and middle Volga regions furnishes as much grass meal as 2.5 hectares of sown grasses in Belorussia and that 2.5 hectares of grain crops in Belorussia are capable of furnishing 1.8 times more grain than an irrigated hectare in the Volga region; if one also takes into account the fact that the lower Volga region is becoming a large gas supply base and that the transporting of gas into the western regions requires definite expenditures and finally that it is precisely these regions which are suffering shortages in grain and straw, then the conclusion to be drawn is obvious: a considerable portion of the increase in irrigated lands in the interfluvial area of the Volga and Ural rivers should ideally be used for creating a large specialized zone for the commodity production of grass meal and seed for perennial grasses (since in Belorussia, for example, the seed for alfalfa ripens only once every 4 years). This will make it possible to expand the sowings of grain crops in the western portion of the country, where the fluctuations in yields are comparatively low. The effect of this measure could be that of producing 8-10 million additional tons of grain, while simultaneously realizing an economy in the use of liquid fuel.

When developing measures for raising the stability of agricultural production, a comparison must be carried out on the indicators for fluctuations in the yields of individual crops, not only for the various territories but also between them and within the borders of each region. The task consists of implementing the principle of optimization of the structure of the branches, extending it to cover in a more consistent manner the different variants for the final use of the agricultural raw materials (for example, to compare grain, potatoes and sugar beets as raw material

sources for obtaining alcohol; wheat, peas and alfalfa -- as sources for feed protein and so forth) and certainly to take into account, in addition to the cropping power, the indicators for its relative fluctuations.

When addressing ourselves to livestock production from the standpoint of the above positions, it should be borne in mind that here the greatest bottleneck with regard to achieving production stability is dairy cattle husbandry (first of all, in connection with the specific nature of its feed base and, secondly, owing to a low coefficient for reproduction of the herd). With regard to feed, it is sufficient to state that nine times more forage is consumed (in terms of weight) per ruble of large-horned cattle output than is the case for poultry. Moreover, if we arbitrarily divide feed into groups according to its suitability for extended storage (first group -- concentrates and straw, second group -- silage and hay and so forth), then the proportion of feed from the first group in the rations of large-horned cattle amounts to only 15 percent and for poultry -- 95 percent. Thus an unfavorable situation in farming adversely affects to a greater degree the status of affairs in dairy cattle husbandry, with pig farming and especially poultry raising suffering to a lesser degree if adequate supplies of transportable feed were created during previous years or if a bad crop was centralized in nature. Hence the task consists of gradually changing the structure of livestock production: increasing the proportion of more stable branches, primarily meat poultry raising and beef cattle husbandry.

In the process of developing intra-branch specialization in cattle husbandry, the following trends have been defined: dairy farms with a 50 to 90 percent proportion of cows in the herd, reproductive farms for the raising of first heifers (8-10 percent cows); farms for the maturing of young stock; cattle fattening enterprises. Of the mentioned types of farms, dairy farms present the greatest requirements with regard to a stable feed base. They are the most labor-intensive, capital-intensive and in terms of the products being produced they must be located as close as possible to cities or to processing enterprises. This serves to define the need for concentrating dairy cattle husbandry in a suburban zone, so as to ensure that each population point is supplied with whole milk products.

But whole milk products constitute less than one half (40-42 percent) of the normative volume of milk consumption. Taking into account the seasonal fluctuations in production volumes, not more than 60 percent of the cows must be maintained here in order to ensure a continuous supply of products for the population. The remaining animals should ideally be concentrated in those areas where there is adequate labor and a stable feed base (green and succulent feed are being produced). This includes first of all regions of stable moisture and farms having irrigated lands.

It is apparent from the Table that the indicator for stable grain production, for RSFSR kolkhozes and sovkhoses on the whole, was 0.825, that is, it exceeds to a substantial degree the corresponding data for rayons which account for 85 percent of the republic's grain crop plantings. It is 14 percent more than the average mean level for yield stability for all rayons. This is explained by the fact that the overall republic indicator is formed not by means of a mechanical totaling of the absolute values for the fluctuations, but rather as a result of mutual and partial compensation for decreases in cropping power in some rayons and increases in others.

In this regard, the concept of non-synchronization of fluctuations λ_j should ideally be introduced as a characteristic of the frequency of discrepancies in the increases and decreases in yields for the rayons or crops being compared. The higher the indicator of non-synchronization and the smaller the difference in fluctuation limits, the more successfully and more completely will the rayons or crops studied supplement one another towards ensuring greater production stability. If orientation is based only upon the average yield data for a period of many years and the value for λ_j is not taken into account, it will be impossible to develop an effective program for improving the structure and distribution of production or to achieve high production stability.

To a certain degree, this is always taken into account in actual practice. It has been noted empirically that fluctuations in the cropping power for grain crops and potatoes in the European part of Russia usually took place with an inverse sign and they were viewed as mutually insuring crops. This includes winter rye and winter wheat; it is our opinion that barley and sunflowers can also be included here. But from such a standpoint studies must be carried out from a regional aspect. This will make it possible to single out rayons which will be fully capable of mutually insuring the production of the principal products. For example, there is every reason to believe that the non-synchronization indicator is high for fluctuations in sugar beet yields for oblasts in the central-chernozem region of the RSFSR and in the southwestern region of the UkSSR and for sunflowers -- for oblasts in the central-chernozem region of the RSFSR and the Donetsko-Preidneprovskiy region of the UkSSR and so forth.

Deserving of special mention are the changes desired in the system for planning procurements. As a most important instrument for carrying out the agrarian policies, this system must orient the agricultural enterprises towards achieving maximum growth, raising stability in connection with supplying the country with food goods and raw materials, ensure the thrifty utilization of food resources and provide assistance in the planned fulfillment of the program for rational production distribution and specialization based upon inter-farm cooperation and agroindustrial integration. However, in actual practice one often encounters a situation wherein a procurement plan is transformed for all practical purposes into a mechanism which registers ratios which existed earlier in the production volumes of different farms, irrespective of the level of actual use of available resources and the plan for logistical supply. In such instances a 50 percent bonus added on to the procurement price for an increase in the sale of products compared to the indicators for the previous five-year plan, to a definite degree turns out to be a bonus for past backwardness and an incentive for the uncontrolled use of capital investments.

When developing a scientifically sound procurement plan, use must be made of normative-balance methods which objectively measure the possible fluctuations in production volumes against the value for the available and planned production resources. Towards this end, the plan for procurements must be composed not prior to but rather following approval of the plan for capital investments and logistical supply. This will make it possible to define a considerable portion of the increase in procurements directly in terms of a unit of increase in the more important resources. For example, for 1 quintal of additional nitrogen fertilizer delivered in Orel Oblast -- 12 rubles of increase in marketable products, Lipetsk Oblast -- 11 rubles, Kursk Oblast -- 14 rubles; for 1,000 rubles worth of increase

in construction-installation work in Tula Oblast -- 125 rubles worth of increase in marketable products and in Voronezh Oblast -- 138 rubles and so forth.

In order to achieve effective stability in reproduction in the APK, the planned formation of an optimum system of reserve funds is required: high quality seed for the appropriate crops and varieties, feed, agricultural equipment, financial and labor resources, reserve capabilities for the processing and storage of agricultural products. For each type of resource, importance is attached to developing a scientifically sound ratio between the state, inter-farm and intra-farm reserve funds. When establishing the plan normatives, use should be made of the entire complex of factors which raise the need for reserve funds. This is not always being observed at the present time. Thus fluctuations in the duration of the indoor maintenance period are to a large degree reflected in the normatives for insurance supplies of feed, although the extent of decreases in feed production during unfavorable years must serve as their determinant factor.

Under the conditions imposed by intense specialization, one factor which is restraining increased stability is the slow development of inter-branch relationships within the framework of the country's agroindustrial complex. In the process, adverse trends are often observed: orientation only towards the branch goals for development, an intensification of the role played by highly specialized interests to the detriment of public interests, extension of the periods for coordinating adopted decisions in allied branches and so forth. Hence, increases are taking place in agricultural product losses and in the expenditures required for producing and storing them, the schedules for the production of new types of products are being extended and only slowly is the quality of these products being raised. The May (1982) Plenum of the CPSU Central Committee assigned the task of converting over to planning the activities of the agroindustrial complex and controlling it as a single goal at all levels and of achieving balanced development and close interaction for all of its branches. This will make it possible to raise considerably the stability of agricultural production and to solve the problem of a stable food supply for the country's population.

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